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| 09/623,514 | 03/29/2001 | Jitao Zou | 43922 | 8673 |

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Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. 09/623,514 | Applicant(s) ZOU ET AL. | |
|---|---|---|---|
| | Examiner Stuart F. Baum | Art Unit 1638 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *21 August 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) *5,7 and 22* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6,8-21 and 23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

## DETAILED ACTION

1. Claims 1-23 are pending.

2. Applicant's election with traverse of Group I, claims 1-4, 6, and 8-23, including SEQ ID NO:1 and 3, in Paper No. 14 is acknowledged. The traversal is on the ground(s) that the antisense and sense claims should be grouped together because the protein is either being up-regulated or down-regulated and they are manifestations of the same inventive concept. The Applicant also believes that the Examiner mis-interpreted the results of the reference that was used to break unity. The Applicant contends that the reference teaches over-expression of a *Ricinus* fatty acyl desaturease gene in *Arabidopsis* changes the fatty acid composition and not the oil content, as the Examiner has contended. This is not found persuasive because sense and antisense operate by two distinct mechanisms and the respective outcomes are distinct as well and require a separate search for each respective process. The Examiner maintains that a change in fatty acid composition of an organism also changes the fatty acid content of that organism.

The requirement is still deemed proper and is therefore made FINAL.

3. Claims 5, and 7 have been withdrawn from consideration for being drawn to non-elected material.

Claim 22 is withdrawn from consideration because it is directed to subject matter belonging to Group II.

Claims 5, 6, 12-19, 22, and 23 have been amended.

Claims 1-4, 6, and 8-21 and 23 will be examined on their merits.

### *Specification*

4. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

5. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01 (See for example page 18, line 23).

### *Information Disclosure Statement*

6. The IDS has been considered. For future reference, U.S. and world patents should be listed in the upper section; separate from the non-patent literature.

### *Sequence Listing*

Applicant's CRF and paper sequence listing have been entered. However, upon examination of SEQ ID NO:1 and 3 it is unclear where the Start (atg) and Stop (tag, taa, or tga) codons are located. Clarification is required.

### *Claim Objections*

7. Claim 23 is objected to for reading on non-elected material.

8. Claims 14-18 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim can not depend on a multiple dependent claim. See MPEP § 608.01(n). For purposes of compact prosecution, the claims have been further examined.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1-4, 6, 8-11, 14-19, 21, and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1 and 2, it is suggested that the word "An" be placed at the beginning of each sentence for clarification.

In claims 1 and 2, it is suggested that the word "molecule" be placed after "(DNA)".

In claims 1, the metes and bounds of "substantially homologous" cannot be determined since Applicant has not adequately defined this term. All subsequent recitations of "substantially homologous" are also rejected.

In claims 3 and 4 it is unclear whether or not "a part of" or "a sequence that is substantially homologous" is contained in a vector. It is suggested that "contains" be inserted before these two recitations to clarify that these sequences are contained in the vector.

In claim 6 it is suggested that "A" be amended to "The" since claim 6 is a dependent claim.

In claim 8 and 9, it is unclear whether or not the "(ATCC PTA-989) and (ATCC PTA-988) are intended as claim limitations. It is suggested that the parentheses be deleted and "having accession number" be inserted before the ATCC information.

In claims 10 and 11 the first "or" should be deleted.

In claims 10 and 11, it is unclear whether "introduced recombinant" also extends to "a part of" and "a sequence that is substantially homologous". It is suggested that "introduced recombinant" be inserted before these two sequences to clarify that the sequences are introduced into the plant and seed.

In claims 14-18 it is not clear what is encompassed by "genomically-unmodified" since all plants have some degree of genetic modification.

In claims 14-18, "A", should be replaced with "The" since the claims are dependent on another claim.

In claim 21, it is unclear whether the scientific names within the parentheses are intended to be claim limitations. It is suggested that only the scientific name be used in the claim for clarification.

In claim 21, "other members" implies that all the names listed in the claim are members of the plant family, Gramineae. It is suggested to remove the word "other" and remove the plant species that are members of the Gramineae.

In claim 23, it is unclear what the "/" means. Is this symbol used to denote the ratio of diacylglycerol to triacylglycerol or is the symbol used to denote the alternate?

In claim 23, the meaning of "changing" needs to be explicitly stated as either "increases" or "decreases". Since the oil content cannot be increased and decreased using the specific change (increase or decrease) consistent with Applicant's elected sense nucleic acid construct.

In claim 23 essential steps are missing. Before the oil can be extracted, the nucleic acid must first be expressed. Correction and/or clarification are required.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

10. Claims 10 and 11 are directed to non-statutory subject matter.

This rejection is made because the "introduced recombinant nucleotide sequence" limitation is not interpreted by the Office to apply to the "part of SEQ ID NO:1" and "sequence that is substantially homologous to SEQ ID NO:1. The claims are being interpreted as being drawn to a plant or seed containing a part of SEQ ID NO:1, or a sequence that is substantially homologous to SEQ ID NO:1, both of which do not indicate that "the hand of man" was involved in the invention, since SEQ ID NO:1 is inherently possessed by natural occurring *Arabidopsis*.

11. Claims 1-4, 6, 10-21, and 23 are rejected under 35 U.S.C. 101 because the claimed invention is not supported by either a specific asserted utility or a well established utility.

The claims are drawn to an isolated DNA molecule of SEQ ID NO:1 or 3, a part of SEQ ID NO:1 or 3, or a sequence that is substantially homologous to SEQ ID NO:1 or 3; a vector comprising one of the former sequences; a transformed plant or transformed plant seed comprising one of the former sequences; a method of producing a transgenic plant and a method of changing the oil content of a plant seed comprising transforming a plant with said vector comprising an isolated DNA molecule of SEQ ID NO:1 or 3, a part of SEQ ID NO:1 or 3, or a sequence that is substantially homologous to SEQ ID NO:1.

The phrase "or a part of SEQ ID NO:1 or 3" can be interpreted as meaning one base pair. Given that Applicant has not disclosed a utility for one base pair, neither a specific asserted utility or a well established utility has been established for the claimed invention.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

12. Claims 1-4, 6, 10-21, and 23 are also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a specific asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

13. Claims 1-4, 6, 10-21, and 23 are rejected under 35 U.S.C. 101 because the claimed invention is not supported by either a credible asserted utility or a well established utility.

The claims are drawn to an isolated DNA molecule of SEQ ID NO:1 or 3, a part of SEQ ID NO:1 or 3, or a sequence that is substantially homologous to SEQ ID NO:1 or 3; a vector comprising one of the former sequences; a transformed plant or transformed plant seed comprising one of the former sequences; a method of producing a transgenic plant and a method of changing the oil content of a plant seed comprising transforming a plant with said vector comprising an isolated DNA molecule of SEQ ID NO:1 or 3, a part of SEQ ID NO:1 or 3, or a sequence that is substantially homologous to SEQ ID NO:1.

Applicants have shown that SEQ ID NO:1 has diacylglycerol acyltransferase (DGAT) activity (page 23, lines 5-12) and that SEQ ID NO:1 encodes a protein of 520 amino acid. The amino acid sequence encoded by the genomic sequence of SEQ ID NO:1 which is SEQ ID NO:3, encodes a protein having only 498 amino acids. Applicant has not shown that SEQ ID NO:3 encodes a protein having acyltransferase activity. Applicant does not explain why the protein encoded by the genomic sequence of SEQ ID NO:3 encodes a protein having 22 amino acids less than the protein encoded by the cDNA of SEQ ID NO:1. Applicant has not disclosed whether the protein encoded by SEQ ID NO:3 contains the catalytic domains essential for acyltransferase activity. Without acyltransferase activity, it is unclear for what SEQ ID NO:3 would be used, by one skilled in the art. Therefore, the claimed invention lacks a credible asserted utility. Additionally, there also is no well-established utility for SEQ ID NO:3. SEQ ID NO:3 does not have a well-established utility for hybridization purposes because the encoded protein does not have utility for the reasons indicated above. Accordingly, the claimed invention lacks utility.

14. Claims 1-4, 6, 10-21, and 23 are also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a credible asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

15. Claims 1-4, 6, 10-21, and 23 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for claims limited to a DGAT cDNA clone of SEQ ID NO:1 from *Arabidopsis* transformed into wild-type *Arabidopsis* to yield plants with an

increased oil content (page 24, line 19) an increase seed weight and an oil content that exhibited a decrease in the total saturates and an increase in the monounsaturates (page 24, line 23) does not reasonably provide enablement for claims broadly drawn to an isolated DNA molecule comprising a part of SEQ ID NO:1 or 3, or a sequence that is substantially homologous to SEQ ID NO:1 or 3; a vector comprising one of the former sequences; a transformed plant or transformed plant seed comprising one of the former sequences; a method of producing a transgenic plant and a method of changing the oil content of a seed comprising transforming a plant with said vector comprising an isolated DNA molecule of SEQ ID NO:1 or 3, a part of SEQ ID NO:1 or 3, or a sequence that is substantially homologous to SEQ ID NO:1 and plants and plant seeds exhibiting an altered seed oil content, an altered diacylglycerol content, an altered fatty acyl composition, and an enhanced biomass. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.

The Applicants isolated a DGAT cDNA clone from an *Arabidopsis* cDNA library made from RNA isolated from silique-specific tissue (page 19, line 2) by amplifying a DGAT sequence using primers designed from a genomic sequence. A clone was amplified that contained 1904 nucleotides and contained an ATG at position nt-139 (page 19, line 10) Applicants believe this to be a full length clone and it was designated as SEQ ID NO:1. Expressing this sequence in yeast resulted in an increase in DGAT activity and this sequence complemented a mutant DGAT gene in *Arabidopsis* (page 23, line 30).

The Applicants have not disclosed if SEQ ID NO:3 encodes a functional DGAT enzyme, nor the products generated by a plant transformed with either SEQ ID NO:1 or 3. In addition,

Applicants broadly claim "a part of SEQ ID NO:1" or a nucleic acid sequence that is "substantially homologous to SEQ ID NO:1. The former is interpreted as a sequence comprising at least one base or a few bases that are in SEQ ID NO:1 while the later recitation encompasses any sequence that comprises additions, deletions or substitutions at any unspecified position, all of which would not be expected to possess acyltransferase activity. The specification also fails to provide guidance for which amino acids of SEQ ID NO:1 and 3 can be altered, and which amino acids must not be changed, to maintain activity and substrate specificity of the encoded protein. The specification also fails to provide guidance for which amino acids can be deleted and which regions of the protein can tolerate insertions and still produce a functional enzyme.

Wiberg, et al (1994, Phytochemistry 36(3):573-577) teach that DGAT from seeds of *Cuphea procumbens* selectively utilize DAG acyl-CoA species with a ten atom carbon tail with no saturations (10:0) but that DGAT from castor bean selectively utilizes a 18:1 acyl-CoA species. Wiberg et al concludes by stating that DGAT enzymes from some oil seeds can discriminate between various alterations of the acyl-CoA subsrate (page 575, left column, 4$^{th}$ paragraph). The different substrate specificities of the DGAT enzyme are a consequence of the amino acid variability between the various isoforms of the DGAT enzyme. Therefore, a knowledge of which amino acids are essential for proper substrate specificity is required when determining which amino acids to change, delete or rearrange within the protein sequence.

It cannot be predicted by one of skill in the art that sequences encoding a part of SEQ ID NO:1 or 3 or sequences homologous to SEQ ID NO:1or 3 will catalyze a reaction with the same activity and substrate specificity as the DGAT enzymes of SEQ ID NO:1 or 3. Bowie et al (1990, Science 247:1306-10) teach that an amino acid sequence encodes a message that

determines the shape and function of a protein and that it is the ability of the protein to fold into unique three-dimensional structures that allows it to function and carry out the instructions of the genome. The cited reference also teaches that the prediction of protein structure from sequence data and, in turn, utilizing predicted structural determinations to ascertain functional aspects of the protein, is extremely complex (pg 1306, left column). Bowie et al teach that while it is known that many amino acid substitutions are possible in any given protein, the positions within the protein's sequence where such amino acid substitutions can be made with a reasonable expectation of maintaining function are limited. Certain positions in the sequence are critical to the three-dimensional structure/function relationship, and these regions can tolerate only conservative substitutions or none at all (pg 1306, right column). The sensitivity of proteins to alterations in even a single amino acid in a sequence is exemplified by McConnell et al (2001, Nature 411 (6838):709-713), who teach that the replacement of a glycine residue located within the START domain of either the PHABULOSA or PHAVOLUTA protein receptor with either an alanine or aspartic acid residue, alters the sterol/lipid binding domain. This change renders the protein constitutively active and therefore creates a dominant mutation which has a drastic alteration in phenotype compared to wild-type *Arabidopsis* plants.

Given the unpredictability of isolating a nucleic acid molecule that when transformed into a plant or plant seed will cause said plant or plant seed to exhibit an altered seed oil content, altered diacylglycerol content, an altered fatty acyl composition and an enhanced biomass for the reasons stated above; given the lack of guidance and examples of isolating a nucleic acid molecule that is a part of or is homologous to SEQ ID NO:1 or 3 and when transformed into plants or plant seeds produces an altered seed oil content, altered diacylglycerol content, an

altered fatty acyl composition and an enhanced biomass for the reasons stated above, given the state of the prior art which does not provide further guidance about DGAT genes; and given the breadth of the claims which encompass a multitude of sequences that have not been exemplified, it would require undue experimentation by one skilled in the art to make and/or use the claimed invention.

16. Claims 1-4, 6, 10-21, and 23 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relavent art that the inventor(s), at the time at the time the application was filed, had possession of the claimed invention. This is a written description rejection.

The claims are drawn to an isolated DNA molecule of SEQ ID NO:1 or 3, a part of SEQ ID NO:1 or 3, or a sequence that is substantially homologous to SEQ ID NO:1 or 3. It is unclear that SEQ ID NO:1 or 3 encode complete proteins. However, the "comprising" language in the claims encompasses a complete gene sequence. While both SEQ ID NO:1 and 3 encoded proteins having Met as the first amino acid, which could indicate an initiation codon, neither of these sequences have a stop codon or a poly A tail indicating the end of the protein sequence. Applicants do not indicate which base position encodes the first amino acid or the base position encoding the last amino acid. Applicant's disclosure does not indicate that SEQ ID NO:1 or 3 encode complete proteins. Therefore, if SEQ ID NO:1 or 3 are not complete gene sequences, one skilled in the art cannot predictably determine the complete gene sequence containing SEQ ID NO:1 or 3 based on Applicant's disclosure.

In addition, substantially homologous sequences encompass naturally occurring allelic variants or mutants of which Applicant is not in possession. Absent of such disclosure, one skilled in the art cannot determine the genus of "substantially homologous" sequences based upon the disclosure of genomic SEQ ID NO:1 and cDNA SEQ ID NO:3 with any certainty or predictability. Accordingly, the specification fails to provide an adequate written description to support the "comprising" language or "substantially homologous" sequences as set forth in the claims. (See Written Description guidelines published in Federal Register/ Vol. 66, No. 4/ Friday, January 5, 2001/ Notices; p. 1099-1111).

17. Claims 8 and 9 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Since the plasmids claimed are essential to the claimed invention, it must be obtainable by a repeatable method set forth in the specification or otherwise be readily available to the public. If a plasmid is not so obtainable or available, the requirements of 35 U.S.C. 112 may be satisfied by a deposit thereof. The specification does not disclose a repeatable process to obtain the exact same plasmid in each occurrence and it is not apparent if such a plasmid is readily available to the public. If the deposit of these plasmid is made under the terms of the Budapest Treaty, then an affidavit or declaration by the applicants, or a statement by an attorney of record over his or her signature and registration number, stating that the plasmid will be irrevocably and

without restriction or condition released to the public upon the issuance of a patent would satisfy the deposit requirement made herein.

If the deposit has not been made under the Budapest Treaty, then in order to certify that the deposit, meets the criteria set forth in 37 CFR 1.801-1.809, applicants may provide assurance of compliance by an affidavit or declaration, or by a statement by an attorney of record over his or her signature and registration number showing that

(a) during the pendency of the application, access to the invention will be afforded to the Commisioner upon request;

(b) all restrictions upon availability to the public will be irrevocably removed upon granting of the patent;

(c) the deposit will be maintained in a public depository for a period of 30 years or 5 years after the last request or for the enforceable life of the patent, whichever is longer;

(d) the viability of the biological material at the time of deposit will be tested (see 37 CFR 1.807); and

(e) the deposit will be replaced if it should ever become unviable.

Compliance is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

18. Claims 1-4, 6, 10-21, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Cahoon et al (March, 1997, U.S. Patent 5,614,400)

The claims are drawn to an isolated DNA molecule of SEQ ID NO:1 or 3, a part of SEQ ID NO:1 or 3, or a sequence that is substantially homologous to SEQ ID NO:1 or 3; a vector comprising one of the former sequences; a transformed plant or transformed plant seed comprising one of the former sequences

Cahoon et al teach an isolated DNA sequence that is transformed into a plant and plant seed. Given that the present application claims a sequence and a part thereof, which can be interpreted to read on one base pair, and it would be inherent that seeds transformed with said sequence would exhibit an altered seed oil content, altered diacylglycerol content, altered fatty acyl composition and exhibit an enhanced biomass and as such Cahoon et al anticipate the claimed invention.

19. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Newman et al (Sept. 1997, NCBI Database, Accession number AA042298)

The claims are drawn to an isolated DNA molecule of SEQ ID NO:1 or 3, a part of SEQ ID NO:1 or 3, or a sequence that is substantially homologous to SEQ ID NO:1 or 3; and a vector comprising one of the former sequences

Newman et al disclose a sequence that exhibits 17.7% sequence identity with SEQ ID NO:1 and 2.7 % sequence identity with SEQ ID NO:3 and as such constitutes a substantially homologous sequence to SEQ ID NO:1 and 3. For purposes of molecular biology the sequence would be in a vector, and as such, Newman et al anticipate the claimed invention.

20. No claims are allowed. SEQ ID NO:1 and 3 are free of the prior art.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stuart Baum whose telephone number is (703) 305-6997. The examiner can normally be reached on Monday-Friday 8:30AM – 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson can be reached on (703) 306-3218. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3014 or (703) 305-3014 for regular communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the legal analyst, Sonya Williams, whose telephone number is (703) 305-2272.

Stuart Baum Ph.D.

November 1, 2002

Phuong Bui 11/4/02

PHUONG T. BUI
PRIMARY EXAMINER